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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,498	10/24/2003	Kunimitsu Aoki	031247	7235

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EXAMINER

STONE, JENNIFER A

ART UNIT PAPER NUMBER

2636

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No. 10/691,498	Applicant(s) AOKI ET AL.	
	Examiner Jennifer A Stone	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on October 24, 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show text labeling for items 5, 7, 8a, 8b in figures 1, 15, and 26; and item 5 in figures 20 and 21 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: the word "came-taken" lines 11 and 13 on page 3 should be changed to "camera-taken".
3. Insert a brief description of figure 3B in the "Brief Description of the Drawings" section on page 7.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Mulvanny et al. (US 5,497,271).

For claim 1, Mulvanny discloses a display system for having a display unit and a reflector which are disposed in an instrument panel of an automotive vehicle (col 1, lns 62-65; col 2, lns 51-59; Fig. 2, item 26), wherein the display unit emits an image that is reflected by the reflector, and the image is projected on a windshield of the vehicle via an opening of the instrument panel (Fig. 3, item 28), the display system superposing the image on a foreground of a driver's view such that a driver of the vehicle can recognize the superposed image and the foreground via the windshield simultaneously (col 2, lns

44-50), the display system comprising: a shutter device disposed between the display unit and the opening (Fig. 3, item 27; col 3, lns 14-16), wherein the shutter device is transformable to pass indication beams of the emitted image through the opening in conformity with the size of the emitted image (col 3, lns 15-20).

For claim 5, the shutter device prevents external rays from reaching the display unit through the opening when the display unit is not in use (col 3, lns 14-18).

For claim 6, the shutter device is opposed to a reflection face of the reflector (Fig. 3, items 26 and 27).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mulvanny et al. (US 5,497,271) and further in view of Knoll et al. (US 5,422,812).

Mulvanny discloses a single shutting device (col 3, ln 21; Fig. 3, item 27); however, Knoll discloses a shutter device that has a plurality of shutting members to pass the indication beams of the emitted image through the opening in conformity with the size of the emitted image (col 4, lns 1-5; col 8, lns 8-15; Fig. 3, items 7 and 13). It would have been obvious to one of ordinary skill in the art, at the time the invention was

made to include a plurality of shutters interfering scattered light is decreased so that a driver views a clear image.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mulvanny et al. (US 5,497,271) and further in view of Roberts et al. (US H1109).

Mulvanny does not disclose the operation of the shutter, except that it operates mechanically (col 3, Ins 18-20). Roberts, on the other hand, does disclose a sliding shutter that opens and closes to pass the indication beams of the emitted image through the opening in conformity with the size of the emitted image (col 14, Ins 45-58; Fig. 13 and 14, item 322). It would have been obvious to slidably cover the opening to prevent an image from being displayed on the windshield to avoid distracting the driver.

7. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulvanny et al. (US 5,497,271) and further in view of Kleinschmidt (6,750,832).

For claim 7, Mulvanny discloses a mirror that receives and reflects both visible rays and infrared rays, but the mirror neither reflects the visible rays nor passes the infrared rays. However, Kleinschmidt discloses a cold mirror that functions to reflect the visible rays and pass the infrared rays (col 14, Ins 63-67; col 15, Ins 1-5; Fig. 22, items KD and DLS). It would have been obvious to include a cold mirror to reduce equipment temperature in order to avoid equipment failure.

For claim 8, Mulvanny discloses a single reflector provided across an optical path between the display unit and the opening (Fig. 2, item 26). Kleinschmidt, on the other hand, discloses a plurality of reflectors (col 4, Ins 45-49). It would have been obvious to

include a plurality of reflectors in order to deflect or reflect light in more than one direction according to a user's preferences.

For claim 9, Mulvanny discloses that the reflector primarily reflects a part of the visible rays that correspond to the image emitted from the display unit (col 2, lns 58-63); however, Mulvanny does not disclose that color wavelengths are emitted. It is obvious that the visible spectrum consist primarily of colors so therefore, parts of the visible waves emitted include colors.

#### ***Allowable Subject Matter***

8. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Ohshima (US 5,144,289) discloses a head-up-display that includes a rotatable shutter for intercepting sunbeams.

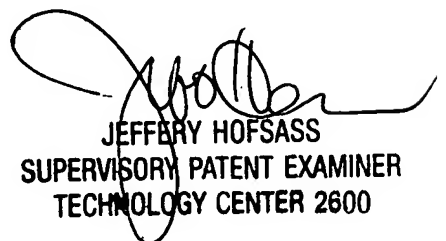
Iino (US 4,886,328) discloses a shutter with a head-up-display unit.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Stone whose telephone number is (571) 272.2976. The examiner can normally be reached 8:00-4:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffery Hofsass can be reached at (571) 272.2981. The fax phone number for the organization where this application or proceeding is assigned is (703) 872.9306 for regular and after final communications.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272.2600.

Jennifer Stone  
March 29, 2005



JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600